

TDMS No. 97003 - 07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7
F_1.Rev.1_R2

Date Report Reqstd: 08/21/2007
Time Report Reqstd: 12:46:31
First Dose M/F: 07/10/02 / 07/11/02
Lab: BAT

C Number: C97003D
Lock Date: 03/23/2005
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
TDMSE Version: 1.8.0

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ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
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males
(cont...)

HEMATOPOIETIC SYSTEM

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[www.westminstermethodology.com](http://www.westministermethodology.com)

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CARDIOVASCULAR SYSTEM

ENDOCRINE SYSTEM

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GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

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Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
.....																								
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
.....																								
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Mesothelioma Benign																								1
Bilateral, Interstitial Cell, Adenoma	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			30	
Interstitial Cell, Adenoma							X											X	X				7	

HEMATOPOIETIC SYSTEM

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY ON TEST	7	7	6	7	5	5	7	6	7	6	7	7	7	6	7	7	7	7	7	7	4	6
	2	2	7	0	5	6	2	1	2	7	1	2	0	7	2	2	1	2	2	2	5	0
	9	9	1	9	2	2	8	2	8	2	3	9	9	9	8	8	4	7	8	8	8	1
<hr/>																						
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7
* TOTALS																						
	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9

Histiocytoma

Subcutaneous Tissue, Schwannoma

1

Benign

Subcutaneous Tissue, Schwannoma

1

Malignant

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

RESPIRATORY SYSTEM

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SPECIAL SENSES SYSTEM

URINARY SYSTEM

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Mesenchymal Tumor Benign

X

1

Renal Tubule, Adenoma

1

Urinary Bladder

Leukemia Mononuclear

X

3

SYSTEMIC LESIONS

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x Lesion present

BLANK Not examined microscopically

.. Lesion present
 Insufficient tissue

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males
(cont...)

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Malignant

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

RESPIRATORY SYSTEM

* Total animals with tissue examined microscopically; Total animals with tumor

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x .. Lesion present BLANK .. Not examined microscopically

I .. Insufficient tissue

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SPECIAL SENSES SYSTEM

Ear

Eye

Harderian Gland Adenoma

Zymbal's Gland Carcinoma

URINARY SYSTEM

Kidney

Leukemia Mononuclear

Mesenchymal Tumor Malignant

Urinary Bladder

Multiple Organ

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ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Colon Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Jejunum Leiomysoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hepatocellular Adenoma																							1
Histiocytic Sarcoma																							1
Leukemia Mononuclear	X																X						15
Mesentery																		+	+	+			6

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Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenoma																		X	X				3
Bilateral, Adenoma																							1
<hr/>																							
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenoma																							1
<hr/>																							
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Mesothelioma Malignant																							1
Bilateral, Interstitial Cell, Adenoma		X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X				25
Interstitial Cell, Adenoma	X						X	X	X											X	X		10

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymph Node																					4
Mediastinal, Schwannoma Malignant, Metastatic, Skin																					1
Pancreatic, Leukemia Mononuclear																		X			2
Renal, Leukemia Mononuclear																			X		1

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INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Adenoma															X								3	
Fibroadenoma					X	X																	2	
<hr/>																								
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Basal Cell Adenoma														X										1
Subcutaneous Tissue, Fibroma																X								3
Subcutaneous Tissue, Fibrous Histiocytoma																	X							1
Subcutaneous Tissue, Schwannoma																		X						1

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Malignant

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

RESPIRATORY SYSTEM

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SPECIAL SENSES SYSTEM

URINARY SYSTEM

SYSTEMIC LESIONS

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<http://www.w3.org/standards/microformats>

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DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	7	7	5	6	7	7	5	7	5	7	7	6	7	4	6	7	7	2	7	5	6
	8	2	2	4	7	2	2	0	2	6	2	2	2	2	8	0	2	2	8	2	5	8
	8	9	8	7	9	8	8	0	9	9	8	9	9	9	6	1	8	9	6	9	8	8

FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7	7	7	7	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	0
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7

Histiocytic Sarcoma

1

Leukemia Mononuclear

16

Mesothelioma Malignant

1

X

X X

X

X X

16

1

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+ .. Tissue examined microscopically

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BLANK - Not examined microscopically

| Insufficient tissue

BEANK ... Not examined microscopically

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Lipoma

Urinary Bladder

Leukemia Mononuclear

Mesothelioma Malignant, Metastatic, Epididymis

**males
(cont...)**

SYSTEMIC LESIONS

Multiple Organ

Leukemia Mononuclear

Mesothelioma Benign

Mesothelioma Malignant

X

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Mesentery + + + + + 10

Mesothelioma Malignant X 2

Schwannoma Malignant X 1

Mesothelioma Malignant, Metastatic,
Epididymis X 1

Tooth 1

CARDIOVASCULAR SYSTEM

ENDOCRINE SYSTEM

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DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	4	7	7	7	5	7	7	7	7	7	3	7	5	7	7	7	4	7	7	6	6	6	7	6	7	6	7	6	
	2	9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2	2	4	2	2	7	2	2	7
	9	0	9	8	9	3	8	9	9	9	9	8	5	9	0	8	9	9	2	9	9	5	9	9	9	5	9	9	9	
	<hr/>																													
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 MG/KG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	*	TOTALS			

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

Tissue NOS

1

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A.. Autolysis precludes evaluation

x ... Lesion present

BLANK - Not examined microscopically

| Insufficient tissue

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Registered: 08/21/2007

Time Report Registered: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Registered: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	4	7	7	7	5	7	7	7	7	7	3	7	5	7	7	7	4	7	7	6	6	6	7	6	7	6	7	6	
	2	9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	8	2	2	4	2	2	4	2	2	7	7	7	
	9	0	9	8	9	3	8	9	9	9	9	8	5	9	0	8	9	9	2	9	9	5	9	9	5	9	9	9	9	
.....	
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	5	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	* TOTALS				
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Leukemia Mononuclear						X																X						4		

INTEGUMENTARY SYSTEM

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically: Total animals with tumor

+ .. Tissue examined microscopically

x ... Lesion present

| Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK - Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

x .. Essien present
| .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

Lymphoma Malignant

ENDOCRINE SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A.. Autolysis precludes evaluation

x ... Lesion present

BLANK - Not examined microscopically

| Insufficient tissue

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Registered: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

NERVOUS SYSTEM

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

* = Total animals with tissue examined microscopically; Total animals with tumor

† .. Tissue examined microscopically

x Lesion present

| Insufficient tissue

M Missing tissue

A .. Autolysis precludes evaluation

BLANK Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Registered: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

CARDIOVASCULAR SYSTEM

Blood Vessel

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A. Autolysis precludes evaluation

x ... Lesion present

BLANK - Not examined microscopically

| Insufficient tissue

DEANX ... Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenoma																							1
Leukemia Mononuclear	X			X		X									X			X	X	X			10
Lymphoma Malignant		X																					1
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Leukemia Mononuclear															X				X	X			5
Pheochromocytoma Benign																			X				4
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenoma															X								4
Parathyroid Gland	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Leukemia Mononuclear															X								3
Pars Distalis, Adenoma	X		X	X					X		X		X	X	X		X	X					24
Pars Intermedia, Adenoma														X			X	X					2

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

x .. Lesion present

WAN .. Not examined microscopically

| .. Insufficient tissue

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

- * .. Total animals with tissue examined microscopically; Total animals with tumor
- + .. Tissue examined microscopically
- x .. Lesion present
- | .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

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Date Report Requested: 08/21/2007

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First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymph Node								+															6	
Mediastinal, Leukemia Mononuclear								X															2	
Mediastinal, Lymphoma Malignant																							1	
Pancreatic, Leukemia Mononuclear																					X		2	
Lymph Node, Mandibular	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	0	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Leukemia Mononuclear																						X	12	
Lymphoma Malignant																					X	X	2	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Leukemia Mononuclear																						X	14	
Lymphoma Malignant																					X	X	1	
Thymus	+	+	+	M	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Leukemia Mononuclear																						X	X	4

* .. Total animals with tissue examined microscopically; Total animals with tumor

† ... Tissue examined microscopically

x Lesion present

.. Lesion present
 Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

Lymphoma Malignant

X

2

INTEGUMENTARY SYSTEM

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Registered: 08/21/2007

Time Report Registered: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

NERVOUS SYSTEM

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

* ... Total animals with tissue examined microscopically: Total animals with tumor

+ Tissue examined microscopically

x Lesion present

| Insufficient tissue

M Missing tissue

A Autolysis precludes evaluation

BLANK Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

*** END OF MALE DATA ***

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

Leukemia Mononuclear

SYSTEMIC LESIONS

Multiple Organ

Leukemia Mononuclear

females (cont...)

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
! .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	6	6	7	7	7	7	7	6	7	7	6	6	7	6	7	7	5	7	7	6	6	6	6	
	2	1	8	2	2	2	2	2	3	4	2	2	8	3	2	0	2	3	2	5	2	2	7	9	8
	9	7	7	9	9	9	9	9	0	9	9	9	7	2	3	9	9	0	9	3	9	9	3	8	8
	<hr/>																								
FISCHER 344 RATS FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 MG/KG	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

Tooth +

Odontoma

CARDIOVASCULAR SYSTEM

ENDOCRINE SYSTEM

Leukemia Mononuclear X X 5

Leukemia Mononuclear X 2

Pheochromocytoma Benign

Islets Pancreatic
.....

* ... Total animals with tissue examined microscopically: Total animals with tumor

† ... Tissue examined microscopically

x .. Lesion present

| Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

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Date Report Requested: 08/21/2007

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First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

Parathyroid Gland + + + M + + + + + + + + + + + + + + M + M + + M + + + + 46

Leukemia Mononuclear X X 3

Pars Distalis, Adenoma X X X X X X X X X X X X X X X X X X X X X 35

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Bilateral, Sarcoma Stromal

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

HEMATOPOIETIC SYSTEM

INTEGUMENTARY SYSTEM

50

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

x .. Lesion present

BLANK .. Not examined microscopically

| .. Insufficient tissue

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

Leukemia Mononuclear

X

SYSTEMIC LESIONS

Multiple Organ

Leukemia Mononuclear

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Registered: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

x ... Lesion present

BLANK .. Not examined microscopically

| Insufficient tissue

BLANK :: Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

Subcutaneous Tissue, Schwannoma Malignant

X

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

RESPIRATORY SYSTEM

Alveolar/Bronchiolar Adenoma

Leukemia Mononuclear

SPECIAL SENSES SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

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First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
! .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Registered: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																								2	
<hr/>																									
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<hr/>																									
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Polyp Stromal																		X			X			X	6
Sarcoma Stromal																		X							1

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY ON TEST	7	7	6	7	4	4	7	7	7	7	4	7	7	7	3	7	7	7	6	7	6	7
	2	3	4	3	6	8	3	3	3	3	6	3	2	3	9	2	3	3	7	3	2	2
	9	0	3	0	6	5	0	0	0	0	7	0	9	0	0	9	0	0	8	0	9	9

FISCHER 344 RATS FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
2 MG/KG	7	7	7	7	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	0
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7

Subcutaneous Tissue, Schwannoma
Malignant

1

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

RESPIRATORY SYSTEM

Alveolar/Bronchiolar Adenoma X 2

Leukemia Mononuclear X X 4

SPECIAL SENSES SYSTEM

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Zymbal's Gland + 2

Adenoma X 2

URINARY SYSTEM

Leukemia Mononuclear X X X 5

Renal Tubule, Carcinoma X 1

Leukemia Mononuclear X 1

SYSTEMIC LESIONS

Leukemia Mononuclear X X X X X X X X 18

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+ .. Tissue examined microscopically

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x .. Essent present
| Insufficient tissue

M .. Missing tissue

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Lab: BAT

ALIMENTARY SYSTEM

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x .. Lesion present

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I .. Insufficient tissue

THE FIRST ORGANIZED WORKERS' MOVEMENT

TDMS No. 97003 - 07

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First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

Urinary Bladder

Leukemia Mononuclear

SYSTEMIC LESIONS

Multiple Organ

Histiocytic Sarcoma

X X X

X X

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Lab: BAT

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically: Total animals with tumor

M .. Missing tissue

† .. Tissue examined microscopically

A.. Autolysis precludes evaluation

x Lesion present

BLANK Not examined microscopically

✓ .. Lesion present
| Insufficient tissue

BLANK .. Not examined microscopically

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Lab: BAT

Leukemia Mononuclear

X

3

INTEGUMENTARY SYSTEM

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

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† .. Tissue examined microscopically

x Lesion present

.. Lesion present
 Insufficient tissue

M .. Missing tissue

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BLANK Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

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Lab: BAT

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

URINARY SYSTEM

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Lab: BAT

SYSTEMIC LESIONS

Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Histiocytic Sarcoma																				X		1	
Leukemia Mononuclear	X		X	X									X	X	X					X	X		13

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DAY ON TEST	7	4	4	7	7	5	7	7	7	6	7	3	6	5	2	7	7	7	1	7	6	7	7	7	7
	2	8	6	3	3	9	3	3	3	2	2	0	9	6	4	2	1	2	1	3	4	2	3	2	3
	9	9	7	0	0	6	0	0	0	5	9	9	8	1	6	9	6	9	2	0	2	9	0	9	0
<hr/>																									
FISCHER 344 RATS FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
18 MG/KG	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

Peripheral Nerve

Spinal Cord

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

URINARY SYSTEM

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Leukemia Mononuclear

x

X X

Urinary Bladder

Leukemia Mononuclear

SYSTEMIC LESIONS

Multiple Organ

Leukemia Mononuclear

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Lab: BAT

CARDIOVASCULAR SYSTEM

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Leukemia Mononuclear	X								X						X		X	X	X				9

Islets, Pancreatic

Parathyroid Gland

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GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

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HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymph Node																	+						+	5
Deep Cervical, Leukemia Mononuclear																							X	1
Mediastinal, Leukemia Mononuclear																						X	X	2
Pancreatic, Leukemia Mononuclear																						X	X	3
Lymph Node, Mandibular	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	0	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Leukemia Mononuclear	X																X					X	X	9
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Leukemia Mononuclear	X																X					X	X	15
Thymus	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	M	+	+	+	+	+	+	45	
Leukemia Mononuclear	X																X					X		5

INTEGUMENTARY SYSTEM

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SYSTEMIC LESIONS

Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Leukemia Mononuclear	X							X	X				X		X	X	X	X	X	X	X	15	

*** END OF REPORT ***

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